基於職業技能需求之線上課程推薦系統

An On-line Courses Recommendation System based on Industry Occupation Skill Requirements

What's the problem?

In Taiwan generally, what students learnt in University are not always what is needed in the industry.

Students spent 4 years in University, learning what might have been out of trend.

Although we have Massive Open Online Courses, such as edX, Coursera, Udasity etc. Students do not always know what to study.

The gap between university and industry

The basic idea of my research is to solve the learning gap between university and industry. Where students find that what they learnt in the university are not necessary what is wanted in the industry.

In this case, it is focused on the tools taught, ex: OOP can be taught by using Java or C++

The solution to this is based on students' self-learning from the online courses edX, courser, etc

Since we cannot change the basic courses like OS, Programming, and Algorithms. These are essential for computer science, cannot be replaced

Solution

The job requirements (with the tools requirement) data are crawled from 104 job hunting site.

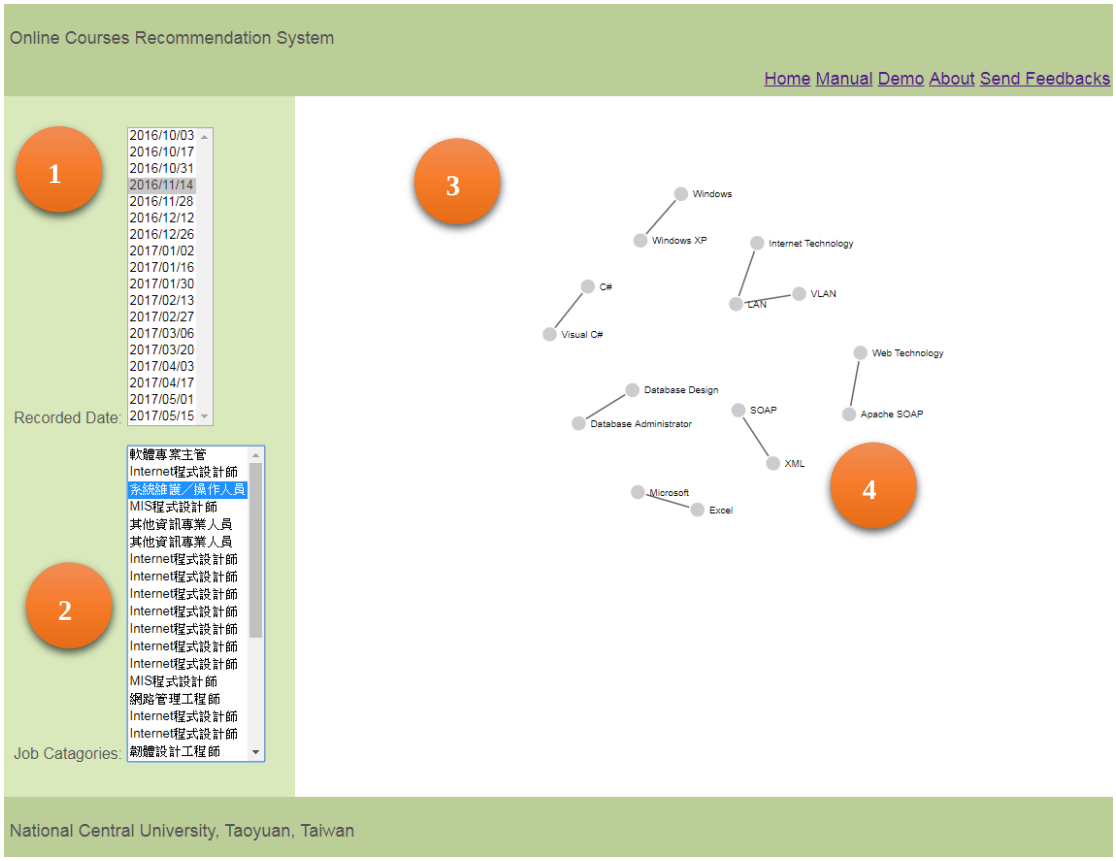
The best way to know what tools are needed in the industry is to look at the actual requirement data.

The different clusters of tools will be formed, and each cluster is expected to be the tools needed for a certain category of programmer.

The clusters hope to be shown in a tool map to help student to understand what to study first.

And each node (tool) in the tool map will be linked to related online course in edX, coursera etc.

The home page of the system is as follows

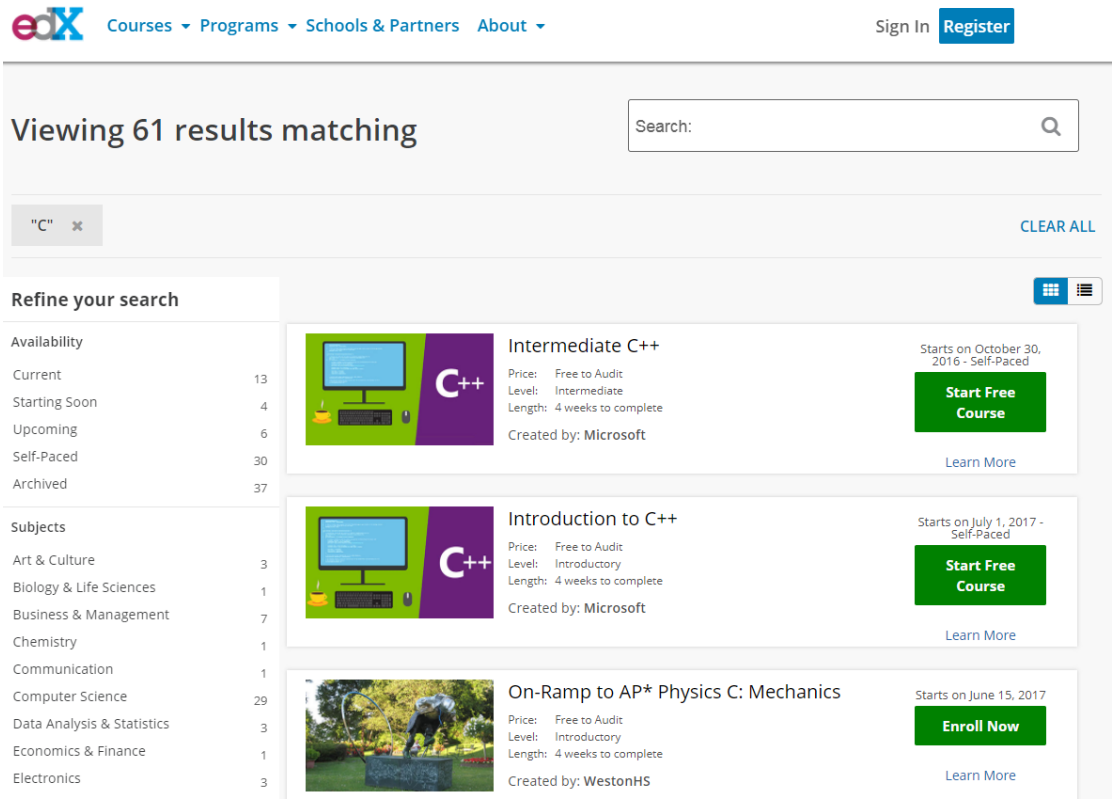


1. The Recorded Dates show the options of the data recorded from 104 job hunting site. The data is recorded every two weeks. The total number of data is recorded 18 times.

2. After selecting the dates, the cluster results of the selected date will be showed on the Job categories section.

3. When Job category is selected, the results Course Map will be showed on the right hand side.

4. If you click on the skill node, it will direct you to a result search page of the clicked node on the edX page.



Search results showed on the edX site when clicking on the C++ node.